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CERCLA file 0098

MEMORANDUM

TO: Rachel Loftin
Site Assessment Manager
Site Evaluation and Grants Section, H-8-1

THROUGH: Richard Bauer
Environmental Scientist
Quality Assurance Management Section (QAMS), P-3-2

FROM: Margie D. Weiner MDW
Senior Data Review Oversight Chemist
Environmental Services Assistance Team (ESAT)

DATE: January 25, 1994

SUBJECT: Submission of Unvalidated Data

Tables 1A and 1B, which contain the Unvalidated Data and Data Reporting Qualifiers for Pacific Fruit Express, Case 21433 Memo #01, have been sent to the sampler, John Robertson of ADEQ. The full data validation report will be delivered as soon as possible.

If you have any questions, please contact me at (415) 882-3061.

cc: John Robertson, ADEQ
Fax No. (602) 207-4467

ANALYTICAL RESULTS
TABLE 1A

Case No.: 21433 Memo #01
Site: Pacific Fruit Express
Lab.: Skinner & Sherman Labs., Inc. (SKINER)
Reviewer: Lorena Molina, ESAT/ICF Kaiser
Date: January 25, 1994

UNVALIDATED DATA

Analysis Type: Low Concentration Soil Samples for RAS Total Metals and Cyanide

Concentration in mg/Kg

Station Location	P-4			P-5			P-9			P-7			P-8			P-13			P-1Z		
Sample I.D.	MYM934			MYM936			MYM937			MYM938			MYM939			MYM940			MYM941		
Date of Collection	12/20/94			12/20/94			12/20/94			12/20/94			12/20/94			12/20/94			12/20/94		
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	11600			5930			13100			13900			13600			10700			12000		
Antimony	2.7 U			2.5 U			2.7 U			2.9 U			2.8 U			2.6 U			2.7 U		
Arsenic	16.9			7.5			14.9			10.6			12.7			8.2			9.3		
Barium	27.3 L			94.0			31.5 L			21.3 L			27.0 L			33.5 L			16.7 L		
Beryllium	0.65 L			0.32 L			0.59 L			0.79 L			0.71 L			0.49 L			0.68 L		
Cadmium	0.38 U			0.35 U			0.38 U			0.40 U			0.40 U			0.36 U			0.38 U		
Calcium	30100			93200			68200			1820			16600			45700			2100		
Chromium	7.7			9.5			7.7			11.9			10.4			7.2			9.2		
Cobalt	5.2 L			1.9 L			7.4 L			10.0 L			6.3 L			5.6 L			5.2 L		
Copper	12.6			11.5			14.7			17.7			16.7			14.2			14.9		
Iron	10300			5830			9730			12400			12500			9570			11100		
Lead	8.7			5.1			8.6			10.3			11.8			7.9			9.4		
Magnesium	7610			5830			8180			8250			7960			5450			6670		
Manganese	140			87.4			218			182			230			240			151		
Mercury	0.06 U			0.05 U			0.06 U			0.06 U			0.06 U			0.05 U			0.06 U		
Nickel	7.0 L			7.7 L			7.6 L			9.3 L			10.2			7.2 L			7.2 L		
Potassium	2700			1380			3250			3520			3790			2470			3010		
Selenium	0.62 U			0.58 U			0.62 U			0.67 U			0.65 U			0.60 U			0.63 U		
Silver	0.47 U			0.44 U			0.46 U			0.50 U			0.49 U			0.45 U			0.47 U		
Sodium	434 L			411 L			445 L			928 L			865 L			603 L			381 L		
Thallium	0.82 U			0.77 U			0.82 U			0.88 U			0.91 L			0.79 U			0.83 U		
Vanadium	63.8			26.1			72.5			43.6			47.0			27.0			40.4		
Zinc	33.2			21.5			32.4			40.1			41.3			31.1			38.3		
Cyanide	0.54 U			0.53 U			0.56 U			0.58 U			0.57 U			0.51 U			0.54 U		
Percent Solids	87.1 %			93.0 %			87.0 %			83.2 %			85.1 %			90.8 %			86.0 %		

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.
N/A-Not Applicable

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

ANALYTICAL RESULTS
TABLE 1A

Case No.: 21433 Memo #01
Site: Pacific Fruit Express
Lab.: Skinner & Sherman Labs., Inc. (SKINER)
Reviewer: Lorena Molina, ESAT/ICF Kaiser
Date: January 25, 1994

UNVALIDATED DATA

Analysis Type: Low Concentration Soil Samples for RAS Total Metals and Cyanide

Concentration in mg/Kg

Sample I.D.	Lab Blank			MDL			CRDL														
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	3.0 U			3.0			40.0														
Antimony	2.4 U			2.4			12.0														
Arsenic	0.60 U			0.60			2.0														
Barium	0.16 U			0.16			40.0														
Beryllium	0.06 U			0.06			1.0														
Cadmium	0.34 U			0.34			1.0														
Calcium	16.7 U			16.7			1000														
Chromium	0.50 U			0.50			2.0														
Cobalt	0.58 U			0.58			10.0														
Copper	0.90 L			0.32			5.0														
Iron	2.7 U			2.7			20.0														
Lead	0.36 U			0.36			0.60														
Magnesium	6.4 U			6.4			1000														
Manganese	0.16 U			0.16			3.0														
Mercury	0.05 U			0.05			0.10														
Nickel	0.88 U			0.88			8.0														
Potassium	11.8 U			11.8			1000														
Selenium	2.8 L			0.56			1.0														
Silver	0.05 L			0.42			2.0														
Sodium	7.9 U			7.9			1000														
Thallium	0.74 U			0.74			2.0														
Vanadium	0.48 U			0.48			10.0														
Zinc	0.92 U			0.92			4.0														
Cyanide	0.50 U			N/A			N/A														

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.
N/A-Not Applicable

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FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

ANALYTICAL RESULTS
TABLE 1A

Case No.: 21433 Memo #01
Site: Pacific Fruit Express
Lab.: Skinner & Sherman Labs., Inc. (SKINER)
Reviewer: Lorena Molina, ESAT/ICF Kaiser
Date: January 25, 1994

UNVALIDATED DATA

Analysis Type: Low Concentration Water Sample for RAS Total Metals and Cyanide

Concentration in ug/L

Station Location	EB-01			Lab Blank			IDL			CRDL										
Sample I.D.	MYM935																			
Date of Collection	12/20/94																			
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	15.0 U			21.4 L			15.0			200											
Antimony	12.2 U			12.2 U			12.2			60.0											
Arsenic	3.0 U			3.0 U			3.0			10.0											
Barium	1.4 L			0.80 U			0.80			200											
Beryllium	0.38 L			0.30 U			0.30			5.0											
Cadmium	1.7 U			1.7 U			1.7			5.0											
Calcium	83.4 U			83.4 U			83.4			5000											
Chromium	2.5 U			2.5 U			2.5			10.0											
Cobalt	2.9 U			3.0 L			2.9			50.0											
Copper	7.9 L			3.4 L			1.6			25.0											
Iron	13.4 U			13.4 U			13.4			100											
Lead	1.8 U			1.8 U			1.8			3.0											
Magnesium	32.2 U			32.2 U			32.2			5000											
Manganese	0.80 U			0.80 U			0.80			15.0											
Mercury	0.20 U			0.20 U			0.20			0.20											
Nickel	4.4 U			4.4 U			4.4			40.0											
Potassium	1860 L			58.8 U			58.8			5000											
Selenium	2.8 U			2.8 U			2.8			5.0											
Silver	5.6 L			2.1 U			2.1			10.0											
Sodium	243 L			39.6 U			39.6			5000											
Thallium	3.7 U			3.7 U			3.7			10.0											
Vanadium	2.4 U			2.4 U			2.4			50.0											
Zinc	5.9 L			4.6 U			4.6			20.0											
Cyanide	10.0 U			10.0 U			N/A			N/A											

Val-Validity Refer to Data Qualifiers in Table 1B
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils.
N/A-Not Applicable

D1, D2, etc.-Field Duplicate Pairs
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CRDL-Contract Required Detection Limit

Table 1B

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value.
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit). The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. (e.g., 10J). If limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, reported as 3J.
L	Results have been qualified because they fall between the Contract Required Quantitation Limit (CRQL) and the Instrument Detection Limit (IDL). These are results for compounds which are present, but are quantitatively unreliable due to the uncertainty of analytical precision close to the detection limit. (In Region 9, this qualifier replaces the brackets formerly used with inorganic results and it is not used with organic results).
C	This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides $\geq$ 10 ng/uL in the final extract should be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
E	Value exceeds linear range of instrument calibration.
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

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OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▶ 3

To John Roberts	From Loftin
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Fax # 602 207-4467	Fax # 415 744-1916

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

0098

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rec'd 12/16/93

CERCLA file

MEMORANDUM

TO: Rachel Loftin, Site Assessment Manager
Site Evaluation and Grants Section (H-8-1)

THROUGH: for Kent Kitchingman, Chief H Ficklin
Quality Assurance Management Section (QAMS) (P-3-2)

FROM: Gail Jones, Regional Sample Control Center Task Manager GJ
Environmental Services Assistance Team (ESAT)

DATE: December 15, 1993

SUBJECT: Response to Comments on Soil and Soil Gas Sample Plan, Pacific Fruit Express Company, Tucson, Arizona (EPA QAMS Document Control Number ZZAZ025S93HJF2)

The subject response to comments, prepared by the Arizona Department of Environmental Quality, dated December 10, 1993, was reviewed. The review was based on the guidance provided in "Preparation of a U.S. EPA Region 9 Field Sample Plan for EPA-Lead Superfund Projects," August, 1993 and on comments provided in a December 2, 1993 ESAT memorandum.

All concerns discussed in the previous ESAT memorandum have been satisfactorily addressed with the exception of the rationale for the use of EPA Methods 8010A/8020A for the analysis of soil samples. The rationale for the use of these methods should be discussed in terms of the needs of the end user. The Sample Plan is recommended for conditional approval, contingent on a further discussion of the rationale for the requirements for lower detection limits. Original comments appear below in boldface type. An evaluation of the response to comments follows in regular type.

Concerns:

1. **[Section IV.A.1, HRS Considerations/Rationale, Waste Type and Quantity; Section V.C.1, Request for Analysis] Section V.C.1 states that "due to a lack of information indicating otherwise, low concentrations of contaminants...are expected." However, section IV.A.1 indicates that Freon 113 has been detected at the site at a level of 15 ug/Kg. This level of contamination could be detected using a modified Routine Analytical Services (RAS) analysis. Section IV.A.1 further states that "no significant levels of VOCs were detected in any of the soil samples" during the original site inspection (SI). The rationale for requesting SW-846 Method 8010A/8020A is therefore unclear. If the data are to be used for risk assessment or some other purpose that requires lower**

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ICF TECHNOLOGY INCORPORATED

MEMORANDUM

TO: Rachel Loftin, Site Assessment Manager
Site Evaluation and Grants Section (H-8-1)

THROUGH: for Kent Kitchingman, Chief
Quality Assurance Management Section (QAMS) (P-3-2)

FROM: Gail Jones, Regional Sample Control Center Task Manager
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DATE: December 15, 1993

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Concerns:

1. **[Section IV.A.1, HRS Considerations/Rationale, Waste Type and Quantity; Section V.C.1, Request for Analysis] Section V.C.1 states that "due to a lack of information indicating otherwise, low concentrations of contaminants...are expected." However, section IV.A.1 indicates that Freon 113 has been detected at the site at a level of 15 ug/Kg. This level of contamination could be detected using a modified Routine Analytical Services (RAS) analysis. Section IV.A.1 further states that "no significant levels of VOCs were detected in any of the soil samples" during the original site inspection (SI). The rationale for requesting SW-846 Method 8010A/8020A is therefore unclear. If the data are to be used for risk assessment or some other purpose that requires lower**

Ms. Rachel Loftin
December 15, 1993

quantitation limits, this must be stated in order to justify the request for lower quantitation limits.

The response to comments indicates that contract required quantitation limits (CRQLs) lower than those required by the contract laboratory program (CLP) are needed due to inherent loss of VOCs during sampling procedures and to assess previous site activities. Justification for analyte detection or reporting limits should be based on data end use, required action or regulatory levels, or health based concerns. This comment has not been satisfactorily addressed.

2. **[Section V.C.1, Request for Analysis, Non-CLP Request, Soil Gas; Table 3, FASP Analyte List] Section V.C.1 discusses the inclusion of two additional compounds to the FASP Primary Analyte List, namely dichlorofluoromethane and trichloromethane. However, Freon 113 (trichlorotrifluoroethane) is not listed as a FASP target analyte. Since this is an analyte of concern for samples being analyzed for volatiles through the Contract Laboratory Program (CLP), it is recommended that Freon 113 also be added to the FASP Primary Analyte List.**

   ADEQ did not realize that FASP could analyze Freon 113. Due to the unavailability of appropriate standard on site, this comment cannot be resolved at this time.

3. **[Section VI.I.1, Field Methods and Procedures, Duplicate Samples; Table 5, Analyses Requested] Section VI.I.1 indicates that "one duplicate sample will be collected for each parameter group for every ten samples collected." However, Table 5 shows that although 23 samples are anticipated to be collected, only two duplicate samples are to be collected. It is recommended that an additional duplicate sample be collected in order to meet the "one in ten" frequency requirement.**

   The response to comments indicates that table 5 has been amended to include the collection of an additional duplicate sample. This comment has been satisfactorily addressed.

Comments:

1. **[Section 1, Objective of Sampling Effort] It should be noted that the latest revision of the guidance referenced above is August 1993. The guidance document cited in this section is dated November 1992. It is recommended that the new guidance be reviewed.**

   The response indicates that the current guidance document has been reviewed. This comment has been satisfactorily addressed.

Ms. Rachel Loftin
December 15, 1993

2. **[Section IV.A.2, HRS Considerations/Rationale, Proposed Sampling] The paragraph titled "Subsurface Soil and Soil Gas Samples No's. 4-13 (P-4,...,P-13)" does not reference sample number P-13, but instead discusses the rationale for the collection of samples P-4 through P-12. It is believed that this is an oversight and the text in Section VI.A.2 should be corrected to include sample P-13.**

   The response to comments indicates that the text has been amended to include sample number P-13. This comment has been satisfactorily addressed.

3. **[Section VI.H.3, Field Methods and Procedures, Sample Traffic Reports, Sample Data Sheets and Chain-of-Custody Records] The distribution of copies of traffic reports/chain-of-custody records is incorrectly specified in Section VI.H.3. Section 5 in the CLP Paperwork Instructions should be consulted for the proper distribution of copies. Also note that traffic reports and chain-of-custody records are currently combined in a single form.**

   The response to comments indicates that correct distribution procedures will be followed. This comment has been satisfactorily addressed.

4. **[Appendix D, U.S. EPA Region 9 CLP Paperwork Instructions, and Field Data Forms for Groundwater, Soil, and Soil-Gas Investigations] The CLP Paperwork Instructions included in Appendix D are not the most current version. Revised CLP Paperwork Instructions, dated August 24, 1993, are available from the EPA Region 9 Quality Assurance Management Section. It is recommended that the August 24, 1993 version of this document be included in future revisions of the plan.**

   The response indicates that revised CLP paperwork instructions will be followed. This comment has been satisfactorily addressed.

5. **[Appendix A, Special Analytical Services Client Request Form] Freon 113 (trichlorotrifluoroethane) should be added to Table 1 of the SAS CRF for SW-846 Method 8010A/8020A, with corresponding Chemical Abstracts Service (CAS) number and the Contract Required Quantitation Limits (CRQL).**

   The response to comments indicates that Freon 113 has been added to Table 1 of the SAS CRF. This comment has been satisfactorily addressed.

The document will be retained by ESAT for future reference. If you have any questions concerning this review, please contact Gail Jones, ICF Technology, Inc., at (415) 882-3067, or Hedy Ficklin, EPA Region 9, Quality Assurance Management Section, at (415) 774-1497.

cc: Hedy Ficklin, QAMS Task Monitor, (P-3-2)